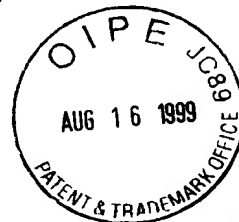SEQUENCE LISTING

<110> Gray, Joe W
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       Kowel, David
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1

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<220>
<223> Description of Artificial Sequence:1b11

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<211> 2605
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:cc43

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4

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<212> DNA
<213> Artificial Sequence

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<212> DNA
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<220>
<223> Description of Artificial Sequence:1b4

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10

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11

<220>

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:ZABC1 Open
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aaaaactgtc gaaacaagtc cttgcttaga agtcgacgta ccggatgccc gccagcgttg 2280
ctgggaaaag atgtgcctcc cctctctagt ttctgtaaac ccaagcccaa gtctgctttc 2340
ccggcgcagt ccaaatccct gccatctgcg aaggggaagc agagccctcc tgggccaggc 2400
aaggcccctc tgacttcagg gatagactct agcactttag ccccaagtaa cctgaagtcc 2460
</220>

12

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cacagaccac agcagaatgt gggggtccaa ggggccgcca ccaggcaaca gcaatctgag 2520
atgtttccta aaaccagtgt ttcccctgca ccggataaga caaaaagacc cgagacaaaa 2580
ttgaaacctc ttccagtagc tccttctcag cccacccteg gcagcagtaa catcaatggt 2640
tccatcgact accccgccaa gaacgacagc ccgtgggcac ctccgggaag agactatttc 2700
tgtaatcgga gtgccagcaa tactgcagca gaatttggtg agcccctcc aaaaagactg 2760
aagtccagcg tggttgccct tgacgttgac cagcccgggg ccaattacag aagaggctat 2820
gaccttccca agtaccatat ggtcagaggc atcacatcac tgttaccgca ggactgtgtg 2880
tatccgtcgc aggcgctgcc tcccaaacca aggttcctga gctccagcga ggtcgattct 2940
ccaaatgtgc tgactgttca gaagccctat ggtggctccg ggccacttta cacttgtgtg 3000
cctgctggta gtccagcatc cagctcgacg ttagaaggtc ttggtggatg tcagtgctta 3060
ctccccatga aattaaattt tacttcatcc tttgagaagc gaatggtgaa agctactgaa 3120
ataagctgtg attgtactgt acataaaaca tatgaggaat ctgcaaggaa cactacagtt 3180
gtgtaa                                                            3186

<210> 11
<211> 1061
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:ZABC1 Protein

<400> 11
Met Gln Ser Lys Val Thr Gly Asn Met Pro Thr Gln Ser Leu Leu Met
 1               5                   10                  15


Tyr Met Asp Gly Pro Glu Val Ile Gly Ser Ser Leu Gly Ser Pro Met
                20                  25                  30


Glu Met Glu Asp Ala Leu Ser Met Lys Gly Thr Ala Val Val Pro Phe
            35                  40                  45


Arg Ala Thr Gln Glu Lys Asn Val Ile Gln Ile Glu Gly Tyr Met Pro
        50                  55                  60


Leu Asp Cys Met Phe Cys Ser Gln Thr Phe Thr His Ser Glu Asp Leu
65                  70                  75                  80


Asn Lys His Val Leu Met Gln His Arg Pro Thr Leu Cys Glu Pro Ala
                85                  90                  95


Val Leu Arg Val Glu Ala Glu Tyr Leu Ser Pro Leu Asp Lys Ser Gln
            100                 105                 110


Val Arg Thr Glu Pro Pro Lys Glu Lys Asn Cys Lys Glu Asn Glu Phe
        115                 120                 125


Ser Cys Glu Val Cys Gly Gln Thr Phe Arg Val Ala Phe Asp Val Glu
```

13

```
              130                   135                   140

Ile His Met Arg Thr His Lys Asp Ser Phe Thr Tyr Gly Cys Asn Met
145                   150                   155                   160

Cys Gly Arg Xaa Xaa Xaa Xaa Pro Trp Phe Leu Lys Asn His Met Arg
                  165                   170                   175

Thr His Asn Gly Lys Ser Gly Ala Arg Ser Lys Leu Gln Gln Gly Leu
                  180                   185                   190

Glu Ser Ser Pro Ala Thr Ile Asn Glu Val Val Gln Val His Ala Ala
                  195                   200                   205

Glu Ser Ile Ser Ser Pro Tyr Lys Ile Cys Met Val Cys Gly Phe Leu
                  210                   215                   220

Phe Pro Asn Lys Glu Ser Leu Ile Glu His Arg Lys Val His Thr Lys
225                   230                   235                   240

Lys Thr Ala Phe Gly Thr Ser Ser Ala Gln Thr Asp Ser Pro Gln Gly
                  245                   250                   255

Gly Met Pro Ser Ser Arg Glu Asp Phe Leu Gln Leu Phe Asn Leu Arg
                  260                   265                   270

Pro Lys Ser His Pro Glu Thr Gly Lys Lys Pro Val Arg Cys Ile Pro
                  275                   280                   285

Gln Leu Asp Pro Phe Thr Thr Phe Gln Ala Trp Gln Leu Ala Thr Lys
                  290                   295                   300

Gly Lys Val Ala Ile Cys Gln Glu Val Lys Glu Ser Gly Gln Glu Gly
305                   310                   315                   320

Ser Thr Asp Asn Asp Asp Ser Ser Ser Glu Lys Glu Leu Gly Glu Thr
                  325                   330                   335

Asn Lys Gly Ser Cys Ala Gly Leu Ser Gln Glu Lys Glu Lys Cys Lys
                  340                   345                   350

His Ser His Gly Glu Ala Pro Ser Val Asp Ala Asp Pro Lys Leu Pro
                  355                   360                   365

Ser Ser Lys Glu Lys Pro Thr His Cys Ser Glu Cys Gly Lys Ala Phe
370                   375                   380

Arg Thr Tyr His Gln Leu Val Leu His Ser Arg Val His Lys Lys Asp
```

14

Arg Arg Ala Gly Ala Glu Ser Pro Thr Met Ser Val Asp Gly Arg Gln
                405                    410                    415

Pro Gly Thr Cys Ser Pro Asp Leu Ala Ala Pro Leu Asp Glu Asn Gly
                420                    425                    430

Ala Val Asp Arg Gly Glu Gly Gly Ser Glu Asp Gly Ser Glu Asp Gly
                435                    440                    445

Leu Pro Glu Gly Ile His Leu Asp Lys Asn Asp Asp Gly Gly Lys Ile
        450                    455                    460

Lys His Leu Thr Ser Ser Arg Glu Cys Ser Tyr Cys Gly Lys Phe Phe
465                    470                    475                    480

Arg Ser Asn Tyr Tyr Leu Asn Ile His Leu Arg Thr His Thr Gly Glu
                485                    490                    495

Lys Pro Tyr Lys Cys Glu Phe Cys Glu Tyr Ala Ala Ala Gln Lys Thr
                500                    505                    510

Ser Leu Arg Tyr His Leu Glu Arg His His Lys Glu Lys Gln Thr Asp
                515                    520                    525

Val Ala Ala Glu Val Lys Asn Asp Gly Lys Asn Gln Asp Thr Glu Asp
        530                    535                    540

Ala Leu Leu Thr Ala Asp Ser Ala Gln Thr Lys Asn Leu Lys Arg Phe
545                    550                    555                    560

Phe Asp Gly Ala Lys Asp Val Thr Gly Ser Pro Pro Ala Lys Gln Leu
                565                    570                    575

Lys Glu Met Pro Ser Val Phe Gln Asn Val Leu Gly Ser Ala Val Leu
                580                    585                    590

Ser Pro Ala His Lys Asp Thr Gln Asp Phe His Lys Asn Ala Ala Asp
                595                    600                    605

Asp Ser Ala Asp Lys Val Asn Lys Asn Pro Thr Pro Ala Tyr Leu Asp
        610                    615                    620

Leu Leu Lys Lys Arg Ser Ala Val Glu Thr Gln Ala Asn Asn Leu Ile
625                    630                    635                    640

Cys Arg Thr Lys Ala Asp Val Thr Pro Pro Pro Asp Gly Ser Thr Thr

15

```
                    645                   650                   655

His Asn Leu Glu Val Ser Pro Lys Glu Lys Gln Thr Glu Thr Ala Ala
            660                   665                   670

Asp Cys Arg Tyr Arg Pro Ser Val Asp Cys His Glu Lys Pro Leu Asn
            675                   680                   685

Leu Ser Val Gly Ala Leu His Asn Cys Pro Ala Ile Ser Leu Ser Lys
            690                   695                   700

Ser Leu Ile Pro Ser Ile Thr Cys Pro Phe Cys Thr Phe Lys Thr Phe
705                   710                   715                   720

Tyr Pro Glu Val Leu Met Met His Gln Arg Leu Glu His Lys Tyr Asn
            725                   730                   735

Pro Asp Val His Lys Asn Cys Arg Asn Lys Ser Leu Leu Arg Ser Arg
            740                   745                   750

Arg Thr Gly Cys Pro Pro Ala Leu Leu Gly Lys Asp Val Pro Pro Leu
            755                   760                   765

Ser Ser Phe Cys Lys Pro Lys Pro Lys Ser Ala Phe Pro Ala Gln Ser
    770                   775                   780

Lys Ser Leu Pro Ser Ala Lys Gly Lys Gln Ser Pro Pro Gly Pro Gly
785                   790                   795                   800

Lys Ala Pro Leu Thr Ser Gly Ile Asp Ser Ser Thr Leu Ala Pro Ser
            805                   810                   815

Asn Leu Lys Ser His Arg Pro Gln Gln Asn Val Gly Val Gln Gly Ala
            820                   825                   830

Ala Thr Arg Gln Gln Gln Ser Glu Met Phe Pro Lys Thr Ser Val Ser
            835                   840                   845

Pro Ala Pro Asp Lys Thr Lys Arg Pro Glu Thr Lys Leu Lys Pro Leu
    850                   855                   860

Pro Val Ala Pro Ser Gln Pro Thr Leu Gly Ser Ser Asn Ile Asn Gly
865                   870                   875                   880

Ser Ile Asp Tyr Pro Ala Lys Asn Asp Ser Pro Trp Ala Pro Pro Gly
            885                   890                   895

Arg Asp Tyr Phe Cys Asn Arg Ser Ala Ser Asn Thr Ala Ala Glu Phe

                                16
```

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              900                 905                 910

Gly Glu Pro Leu Pro Lys Arg Leu Lys Ser Ser Val Val Ala Leu Asp
        915                 920                 925

Val Asp Gln Pro Gly Ala Asn Tyr Arg Arg Gly Tyr Asp Leu Pro Lys
        930                 935                 940

Tyr His Met Val Arg Gly Ile Thr Ser Leu Leu Pro Gln Asp Cys Val
945                 950                 955                 960

Tyr Pro Ser Gln Ala Leu Pro Pro Lys Pro Arg Phe Leu Ser Ser Ser
                965                 970                 975

Glu Val Asp Ser Pro Asn Val Leu Thr Val Gln Lys Pro Tyr Gly Gly
        980                 985                 990

Ser Gly Pro Leu Tyr Thr Cys Val Pro Ala Gly Ser Pro Ala Ser Ser
        995                 1000                1005

Ser Thr Leu Glu Gly Leu Gly Gly Cys Gln Cys Leu Leu Pro Met Lys
    1010                1015                1020

Leu Asn Phe Thr Ser Ser Phe Glu Lys Arg Met Val Lys Ala Thr Glu
1025                1030                1035                1040

Ile Ser Cys Asp Cys Thr Val His Lys Thr Tyr Glu Glu Ser Ala Arg
                1045                1050                1055

Asn Thr Thr Val Val
            1060


<210> 12
<211> 3066
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:1b1

<400> 12
ggaaacagct atgaccatga ttacgccaag ctcgaaatta accctcacta aagggaacaa 60
aagctggagc tccaccgcgg tggcggccgc tctagaacta gtggatcccc cgggctgcag 120
gaattcggca cgaggctcca ccgacagcca ggcactgggc agcacgcact ggagacccag 180
gaccctgtgc aggagcagct ccgggtgaca cgaggggact gaagatactc ccacaggggc 240
tcagcaggag caatgggtaa ccaaatgagt gttccccaaa gagttgaaga ccaagagaat 300
gaaccagaag cagagactta ccaggacaac gcgtctgctc tgaacggggt tccagtggtg 360
```

17

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gtgtcgaccc acacagttca gcacttagag gaagtcgact tgggaataag tgtcaagacg 420
gataatgtgg ccacttcttc ccccgagaca acggagataa gtgctgttgc ggatgccaac 480
ggaaagaatc ttgggaaaga ggccaaaccc gaggcaccag ctgctaaatc tcgttttttc 540
ttgatgctct ctcggcctgt accaggacgt accggagacc aagccgcaga ttcatccctt 600
ggatcagtga agcttgatgt cagctccaat aaagctccag cgaacaaaga cccaagtgag 660
agctggacac ttccggtggc agctggaccg gggcaggaca cagataaaac cccagggcac 720
gcccccggccc aagacaaggt cctctctgcc gccagggatc ccacgcttct cccacctgag 780
acagggggag caggaggaga agctccctcc aagcccaagg actccagctt ttttgacaaa 840
ttcttcaagc tggacaaggg acaggaaaag gtgccaggtg acagccaaca ggaagccaag 900
agggcagagc atcaagacaa ggtggatgag gttcctggct tatcagggca gtccgatgat 960
gtccctgcag ggaaggacat agttgacggc aaggaaaaag aaggacaaga acttggaact 1020
gcggattgct ctgtccctgg ggacccagaa ggactggaga ctgcaaagga cgattcccag 1080
gcagcagcta tagcagagaa taataattcc atcatgagtt tctttaaaac tctggtttca 1140
cctaacaaag ctgaaacaaa aaaggaccca gaagacacgg gtgctgaaaa gtcacccacc 1200
acttcagctg accttaagtc agacaaagcc aactttacat cccaggagac ccaagggggct 1260
ggcaagaatt ccaaaggatg caacccatcg gggcacacac agtccgtgac aacccctgaa 1320
cctgcgaagg aaggcaccaa ggagaaatca ggacccacct ctctgcctct gggcaaactg 1380
ttttggaaaa agtcagttaa agaggactca gtccccacag gtgcggagga gaatgtggtg 1440
tgtgagtcac cagtagagat tataaagtcc aaggaagtag aatcagcctt acaaacagtg 1500
gacctcaacg aaggagatgc tgcacctgaa cccacagaag cgaaactcaa aagagaagaa 1560
agcaaaccaa gaacctctct gatggcgttt ctcagacaaa tgtcagtgaa aggggatgga 1620
gggatcaccc actcagaaga aataaatggg aaagactcca gctgccaaac atcagactcc 1680
acagaaaaga ctatcacacc gccagagcct gaaccaacag gagcaccaca gaagggtaaa 1740
gagggctcct cgaaggacaa gaagtcagca gccgagatga acaagcagaa gagcaacaag 1800
caggaagcca aagaaccagc ccagtgcaca gagcaggcca cggtggacac gaactcactg 1860
cagaatgggg acaagctcca aaagagacct gagaagcggc agcagtccct tgggggcttc 1920
tttaaaggcc tgggaccaaa gcggatgttg gatgctcaag tgcaaacaga cccagtatcc 1980
atcggaccag ttggcaaacc caagtaaaca aatcagcacg gttcccacca ggttctcctg 2040
ccaccaagat gtgttctcct tactccatct cctccccaaa cacgctccat gtatatattc 2100
ttctgatggc cagcaaatga aattctgcct agaaattaag cccgagctgt tgtatattga 2160
ggtgtattat ttacgtctct ggtccagtct tttctggcaa ataacagtaa agatggttta 2220
gcaggtcacc tagttgggtc agaagagtcg atgatcacca agcaggaaag ggagggaata 2280
gaggaatgtg ttcgggttaa gtgatgaaaa tggcagtggt ggccgggcgt ggtggctctc 2340
gcctgtaatc tcagcacttt gggaggccga ggcaggtgga tcacctgagg tcaggagttc 2400
aagactagcc tggccaacat catgaaaccc cgtctctact aaaaatacaa aaattagcca 2460
ggcatggtgg cacacacctg tagtcccagc tactcgggag cccaacgcac gagaaccgct 2520
tgtacccagg aggtggaggt tgcagtgagc cgaagttgca ccattgcact ccaccctggg 2580
cgacagagca agattctatc aaaaaaaaaa ggcagtggca agtaagttat agaagagaaa 2640
tgctgctaga aggaattaag cgttgtagta aacgcgtgct catcctctaa gcttgaagaa 2700
gggagacgaa aatccatttg tttaaattca catctcaagg agggagaacc cgggctgtgt 2760
tgggtggttg ccaatttcct agaacggaat gtgtggggta tagaaaaagg aatgaataag 2820
cgttgttttt caaatagggt ccttgtaagt tattgatgag agggaaaaga ttgactgggg 2880
agggcttaaa atgatttggg aaaacaattg cttttgaggc tcagtgacaa cggcaaagat 2940
tacaacttaa aaaaaaaaaa aaaaaaactc gagactagtt ctctctctct ctcgtgccga 3000
attcgatatc aagcttatcg ataccgtcga cctcgagggg gggcccggta cccaattcgc 3060
cctata                                                        3066
```

<210> 13
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                              18
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<211> 939
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Genomic
        Sequence from BAC Clone 97 Filtered Query Sequence

<400> 13
tgtgatattg attcatgccc tcttgcacct tgccaaacat cacacgcttg ccatccagtc 60
cactcgattt tggcagtgca gatgaaaaac tgggaaccat ttgtgttgag tccagcaaga 120
tgccaggacc tgcatgtttc agaacgaagt tcttcatcat ccaatttctc cctgtatatg 180
ggcttaccac nactgccgtt aagtcgtgtn aagtcaccac tcaggtacat aatggaataa 240
ttctgcaaag gcaggagnca ctttctctcc agtgctcaga ccatgaaagt tttctgatgt 300
ctttggaact ttgtctgcaa atagctcgaa ggagacatgg cctaaaggct cgccatctgc 360
ggtgatattg naacatggta gggctgaccg tggctgtggc catgactttt tagantnnnn 420
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 480
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnncccaat gcgggacaga gaatcnaaga 540
aactgtatta gggaaagggt cctgagttta tgccaaagtt tcccagattg gtttccattg 600
aaacgtagct ctgtgagata ccatcaggtg ttatgtgaag aaatgtctgt gtagtcaaat 660
atgtttgagt gagtgagcct gagctgagca agactttact gcaagacttc ccatcttctg 720
tcccttttta tgctaatggg taacacaaac tccaaaagtg gggtgtacag catgaggcat 780
taacaaaaat ttattggacc ccacacacnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 840
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 900
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnctctc                       939

<210> 14
<211> 112
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Subject Seq -
        Rat Cyclophillin 64-175

<400> 14
ttcgacatca cggctgatgg cgagcccttg ggtcgcgtct gcttcgagct gtttgcagac 60
aaagttccaa agacagcaga aaactttcgt gctctgagca ctggggagaa ag         112

<210> 15
<211> 106
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:e:Subject Seq -
        Rat Cyclophilli404-348

19

```
<400> 15
tgctggacca aacacaaatg gttcccagtt ttttatctgc actgccaaga ctgagtgggg 60
ctggatggca agcatgtggt ctttgggaag gtgaaagaag gcatga                106


<210> 16
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:e:Subject Seq -
      Rat Cyclophillin 299-336

<400> 16
agaacttcat cctgaagcat acaggtcctg gcatcttg                         38


<210> 17
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:e:Subject Seq -
      Rat Cyclophillin 193-220

<400> 17
tcctcctttc acagaattat tccaggat                                    28


<210> 18
<211> 112
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Query Seq ID NO
      13 261-372

<400> 18
tncaatatca ccgcagatgg cgagccttta ggccatgtct ccttcgagct atttgcagac 60
aaagttccaa agacatcaga aaactttcat ggtctgagca ctggagagaa ag         112


<210> 19
<211> 106
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Query Seq ID NO
```

13 13-117

<400> 19
tgctggactc aacacaaatg gttcccagtt tttcatctgc actgccaaaa tcgagtggga 60
ctggatggca agcgtgtgat gtttggcaag gtgcaagagg gcatga 106

<210> 20
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Query Seq ID NO
      13116-153

<400> 20
agaacttcgt tctgaaacat gcaggtcctg gcatcttg 38

<210> 21
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Query Seq ID NO
      13 229-256

<400> 21
tcctgccttt gcagaattat tccattat 28

<210> 22
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Forward primer

<400> 22
ttggcattgg tatcaggtag ctg 23

<210> 23
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Backward

Primer

<400> 23
ttggagcaga gaggggattg tgtg                                    24


<210> 24
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:: Forward
      primer

<400> 24
aatcccctca aaccctgctg ctac                                    24


<210> 25
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Backward
      Primer

<400> 25
tggagcctga acttctgcaa tc                                      22


<210> 26
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:: Forward
      primer

<400> 26
ccgggatacc gacattg                                            17


<210> 27
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Backward

Primer

<400> 27

tgcacataaa acagccagc

<210> 28
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:: Forward
      primer

<400> 28

ttggaatcaa tggagcaaaa

<210> 29
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Backward
      Primer

<400> 29

agctttaccc aatgtggtcc

<210> 30
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:: Forward
      primer

<400> 30

gtggtgaaca ccaataaatg g

<210> 31
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Backward

Primer

<400> 31
aagcaaataa aaccaataaa ctcg                                              24

<210> 32
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:: Forward
      primer

<400> 32
caagatctga ccccgtcaat c                                                 21

<210> 33
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Backward
      Primer

<400> 33
gacttcttca ggaaagagat cagtg                                             25

<210> 34
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:: Forward
      primer

<400> 34
gccatgtacc cacctgaaaa atc                                               23

<210> 35
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Backward

Primer

<400> 35
tcagaacacc cgtgcagaat taag                                          24


<210> 36
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:: Forward
      primer

<400> 36
cctaaaactt ggtgcttaaa tcta                                          24


<210> 37
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Backward
      Primer

<400> 37
gtctcacaag gcagatgtgg                                               20


<210> 38
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:: Forward
      primer

<400> 38
tttgtgtatg ttgagccatc                                               20


<210> 39
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Backward

Primer

<400> 39
cttccaatct cattctatga gg                                                      22

<210> 40
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Forward Primer

<400> 40
gcttgtttaa gtgtcactag gg                                                      22

<210> 41
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Backward
      Primer

<400> 41
cactctggta aatgaccttt gtc                                                     23

<210> 42
<211> 21          .
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:: Forward
      primer

<400> 42
cctacaccat tccaactttg g                                                       21

<210> 43
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Backward
      Primer

26

<400> 43
gccagatgta tgtttgctac ggaac                                            25


<210> 44
<211> 22
<212> DNA
<213> Artificial Sequence


<220>
<223> Description of Artificial Sequence:: Forward
      primer


<400> 44
tctcaaacct gtccacttct tg                                               22


<210> 45
<211> 19
<212> DNA
<213> Artificial Sequence


<220>
<223> Description of Artificial Sequence: Backward
      Primer


<400> 45
ctgctgtggt ggagaatgg                                                   19


<210> 46
<211> 24
<212> DNA
<213> Artificial Sequence


<220>
<223> Description of Artificial Sequence:: Forward
      primer


<400> 46
tgtcctcctt ctccctcatc ctac                                             24


<210> 47
<211> 22
<212> DNA
<213> Artificial Sequence


<220>
<223> Description of Artificial Sequence: Backward
      Primer

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<400> 47
aatgcctcca ctcacaggaa tg                                              22


<210> 48
<211> 23
<212> DNA
<213> Artificial Sequence


<220>
<223> Description of Artificial Sequence:: Forward
      primer


<400> 48
cctcttcagt gtcttcctat tga                                             23


<210> 49
<211> 20
<212> DNA
<213> Artificial Sequence


<220>
<223> Description of Artificial Sequence: Backward
      Primer


<400> 49
gggaggaggt tgtaggcaac                                                 20


<210> 50
<211> 21
<212> DNA
<213> Artificial Sequence


<220>
<223> Description of Artificial Sequence: Forward primer


<400> 50
agcaaagcaa aggtggcaca c                                               21


<210> 51
<211> 24
<212> DNA
<213> Artificial Sequence


<220>
<223> Description of Artificial Sequence: Backward
      Primer
```

```
<400> 51                                                    24
tgacatggga gaagacacac ttcc


<210> 52
<211> 20
<212> DNA
<213> Artificial Sequence


<220>
<223> Description of Artificial Sequence:Forward Primer


<400> 52                                                    20
aggtttacca atgtgtttgg


<210> 53
<211> 21
<212> DNA
<213> Artificial Sequence


<220>
<223> Description of Artificial Sequence: Backward
      Primer


<400> 53                                                    21
tctacatccc attctcttct g


<210> 54
<211> 21
<212> DNA
<213> Artificial Sequence


<220>
<223> Description of Artificial Sequence:: Forward
      primer


<400> 54                                                    21
gtggtgaaca ccaataaatg g


<210> 55
<211> 24
<212> DNA
<213> Artificial Sequence


<220>
<223> Description of Artificial Sequence: Backward
      Primer


<400> 55
```

aagcaaataa aaccaataaa ctcg

<210> 56
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Forward Primer

<400> 56
ttggaatcaa tggagcaaaa                                          20

<210> 57
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Backward
      Primer

<400> 57
agctttaccc aatgtggtcc                                          20

<210> 58
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Forward Primer

<400> 58
gccatgtacc cacctgaaaa atc                                      23

<210> 59
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Backward
      Primer

<400> 59
tcagaacacc cgtgcagaat taag                                     24